

U.S. Application No.: NEW
PRELIMINARY AMENDMENT

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Attorney Docket: 3926.187

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) An air-conditioning installation, ~~in particular~~ for motor vehicles, having a compression refrigeration circuit of a refrigerant for A/C operation with a high-pressure region, a suction region and a connected stationary air-conditioning circuit, in particular for stationary air-conditioning operation when the compression refrigeration circuit is switched off, at least having:

- a compressor;
 - an expansion valve;
 - an evaporator as cooler for releasing refrigeration to the environment; and
 - a thermal accumulator comprising a heat storage medium, the thermal accumulator serving as a refrigeration accumulator and as a condenser during stationary air-conditioning operation, and the refrigerant which is present as heat transfer medium being used to transfer the refrigeration from the thermal accumulator to the evaporator in the stationary air-conditioning circuit,
- ~~characterized in that~~ wherein the evaporator (5) and the thermal accumulator (6) are connected in series in terms of the flow of refrigerant,

wherein a thermally insulated refrigerant collector (7) is provided, and

wherein during thermal loading and unloading of the thermal accumulator (6) in A/C operation and/or stationary air-conditioning operation, the refrigerant flows through the components in the following order: evaporator (5), thermal accumulator (6) and refrigerant collector (7).

2. (canceled)

3. (currently amended) The air-conditioning installation as claimed in claim 1 ~~or 2~~, wherein ~~characterized in that~~ the refrigerant (11) is carbon dioxide (CO₂).

4. (currently amended) The air-conditioning installation as claimed in claim 1 ~~2 or 3~~, wherein ~~characterized in that~~ the refrigerant (11) is transported from the thermal accumulator (6) or from the refrigerant collector (7) to the evaporator (5) in the stationary air-conditioning circuit by a circulation pump (13) via a condensate line (14).

5. (currently amended) The air-conditioning installation as claimed in claim 1 ~~2 or 3~~, wherein ~~characterized in that~~ the refrigerant (11) in the stationary air-conditioning circuit is transported from the thermal accumulator (6) and/or from the refrigerant collector (7) to the evaporator (5) by the thermosiphon effect via a refrigerant condensate line (14), which can preferably be closed by a switching valve (17), the evaporator (5) being arranged at a geodetically lower level than

the thermal accumulator (6) and/or the refrigerant collector (7).

6. (currently amended) The air-conditioning installation as claimed in claim 4 ~~one of claims 2 to 5~~, wherein ~~characterized in that~~ the refrigerant accumulator (7) in the stationary air-conditioning circuit and/or on the refrigerant side is arranged downstream of the thermal accumulator (6) and upstream of the circulation pump (13) or the evaporator (5).

7. (currently amended) The air-conditioning installation as claimed in claim 4 ~~or 5~~, wherein ~~characterized in that~~ the refrigerant collector (7) and/or the thermal accumulator (6) and/or the condensate line (14) are thermally insulated.

8. (currently amended) The air-conditioning installation as claimed in claim 4 ~~one of claims 4 to 7~~, wherein ~~characterized in that~~ the opening (14') of the refrigerant condensate line (14) only projects into the refrigerant collector (17) to a depth such that the circulation pump (13) and/or the thermosiphon effect only sucks in liquid refrigerant (11).

9. (currently amended) The air-conditioning installation as claimed in claim 1 ~~one of claims 2 to 8~~, wherein ~~characterized in that~~ in stationary air-conditioning operation a nonreturn valve (9) prevents refrigerant (11) from penetrating out of the high-pressure region into the power section comprising the

evaporator (5) and the refrigerant collector (7).

10. (currently amended) The air-conditioning installation as claimed in claim 9, wherein ~~characterized in that~~ the circulation pump (13) and/or the nonreturn valve (9) are integrated in the thermal accumulator (6) and/or the refrigerant collector (7).

11. (currently amended) The air-conditioning installation as claimed in claim 1 ~~one of claims 2 to 10~~, wherein ~~characterized in that~~ the thermal accumulator (6) and the refrigerant collector (7) are integrated with one another.

12. (currently amended) The air-conditioning installation as claimed in claim 1 ~~one of claims 2 to 11~~, wherein ~~characterized in that~~ the thermal accumulator (6) surrounds the refrigerant collector (7).

13. (currently amended) The air-conditioning installation as claimed in claim 1 ~~one of claims 2 to 10~~, wherein ~~characterized in that~~ the thermal accumulator (6) and the refrigerant collector (7) are arranged separately.

14. (currently amended) The air-conditioning installation as claimed in claim 1 ~~one of claims 1 to 13~~, wherein ~~characterized in that~~ the thermal accumulator (6) and in particular the loading with refrigeration in A/C operation when the compression

refrigeration circuit is running can be bypassed by an electrical or thermodynamic bypass valve (15) with a bypass line (16).

15. (currently amended) The air-conditioning installation as claimed in claim 1 ~~one of claims 1 to 14~~, wherein ~~characterized in that~~ the heat storage medium (6') in the thermal accumulator (6) undergoes a phase change between the solid and liquid phase.

16. (currently amended) The air-conditioning installation as claimed in claim 1 ~~one of claims 1 to 15~~, wherein ~~characterized in that~~ the evaporator (5) is of cross-countercurrent design.

17. (currently amended) The air-conditioning installation as claimed in claim 1 ~~one of claims 1 to 16~~, wherein ~~characterized in that~~, in particular when the thermal accumulator (6) ~~has been fully loaded~~ is laden with refrigeration, the compression refrigeration circuit and the stationary air-conditioning circuit can be operated in parallel.